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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,446	12/12/2000	Masahiro Bessho	14110	7670
7590	05/28/2004		EXAMINER	
Leopold Presser Scully Scott Murphy & Presser 400 Garden City Plaza Garden City, NY 11530			MAYEKAR, KISHOR	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/719,446	BESSHO ET AL.	
	Examiner Kishor Mayekar	Art Unit 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-5 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/2000</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the typographical phrase "a solid; liquid separator". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase "that contains an alkali solution" is indefinite and may be amended as --for containing an alkali solution-- to eliminate reference to a method of operating the apparatus. The same is applied to the phrase "which is

immersed in the alkali solution" which may amended as --adapted to be immersed in the alkali solution--.

Regarding to claim 5, the same is applied to claim 1 to the phrases "that takes out of the processing liquid", "that supplies gas to said reactor tube", "that supplies air to said reactor tube", "that supplies water to said reactor tube" and "that controls ... chamber".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-024081 (with a copy of on-line English translation) in view of ROSTAING et al. (5,965,786). The reference's invention is directed to a method of decomposing of

organic halogen compounds by induction plasma and an apparatus thereof. The reference discloses in Fig. 1 that the apparatus comprises a waste processing tank for containing an alkali solution, a reactor tube having a lower opening at one end adapted to be immersed in the alkaline solution. The differences between the reference and the above claims are the use of a tube having an opening end thereof adapted be immersed in the alkaline solution and connected to the reactor tube, and the use of a rectangular waveguide.

As to the first difference, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings because "making elements separable was held to have been obvious". In re Dulberg 129 USPQ 148.

As to the second difference, ROSTAING, a reference cited by Applicant, shows the use a waveguide of the type recited to decompose organic halogen compounds (see Fig. 1). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings as shown by ROSTAING because the selection of any of known equivalent plasma devices to treat organic halogen compounds would have been within the level of ordinary skill in the art.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over as applied to claims 1-4 above, and further in view of JP 08-323133, another reference cited by Applicant. The reference as applied above further discloses a solid-liquid separator (see page 2 of the translation). The differences between the references as applied above and the instant claim is the provision of a cooler, a gas cylinder, an air compressor and a controller in the apparatus.

As to the provision of a cooler for cooling liquid in the tank, JP '133 shows the above limitation (see the abstract). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings as suggested by JP '133 since the process is thermal, the provision of a cooler to cool liquid in the tank would have been within the level of ordinary skill in the art.

As to the provision of a gas cylinder, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings because "the use of conventional materials to perform their known functions in a conventional process is obvious". In re Raner 134 USPQ 343.

As to the provision of an air compressor, the motivation to make a specific

structure is always related to the properties or uses one skilled in the art would expect the structure to have, *In re Newell* 13 USPQ 2d 1248, *Fromson v. Advance Offset Plate* 225 USPQ 26; *In re Gyurik* 201 USPQ 552.

As to the provision of a controller, although the reference is virtually silent in regards to the provision, the reference's apparatus and process would lead one of ordinary skill in the art towards the provision of controller for controlling the operation of the apparatus, in absence of evidence to the contrary.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,614,000 in view of ROSTAING '786. The patent claim recites an apparatus comprising a tank, a reaction tube and a waveguide as claimed except for the blow tube, and the waveguide being in the rectangular shape and extending horizontally.

As to the first difference, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings because "making elements separable was held to have been obvious". In re Dulberg 129 USPQ 148.

As to the second difference, ROSTAING shows the use a waveguide extending horizontally in an apparatus for decomposing organic halogen compounds (see Fig. 1). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings as shown by ROSTAING because "the use of conventional materials to perform their known functions in a conventional process is obvious".

In re Raner 134 USPQ 343.

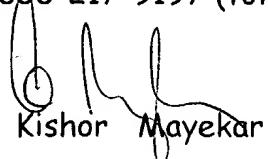
As to the shape of the waveguide, "changes of size, degree, shape proportion, and sequence of adding ingredients" have been held to be obvious, In re

Rose 105 USPQ 237; *In re Aller* 105 USPQ 233; *In re Dailey* 149 USPQ 47; *In re Reese* 129 USPQ 402; *In re Gibson* 5 USPQ 230.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kishor Mayekar

A handwritten signature consisting of the name "Kishor Mayekar" written in cursive script. The signature is positioned below a stylized, abstract drawing that resembles a series of peaks or waves.

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Primary Examiner
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